

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
25 January 2001 (25.01.2001)

PCT

(10) International Publication Number
WO 01/06279 A1

(51) International Patent Classification⁷: G02B 5/28, 6/34

(74) Agent: GRIFFITH HACK; GPO Box 4164, Sydney, NSW 2001 (AU).

(21) International Application Number: PCT/AU00/00827

(81) Designated States (*national*): AU, CA, JP, KR, US.

(22) International Filing Date: 10 July 2000 (10.07.2000)

(84) Designated States (*regional*): European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

(25) Filing Language: English

(26) Publication Language: English

Published:

— With international search report.

(30) Priority Data:
PQ 1655 15 July 1999 (15.07.1999) AU

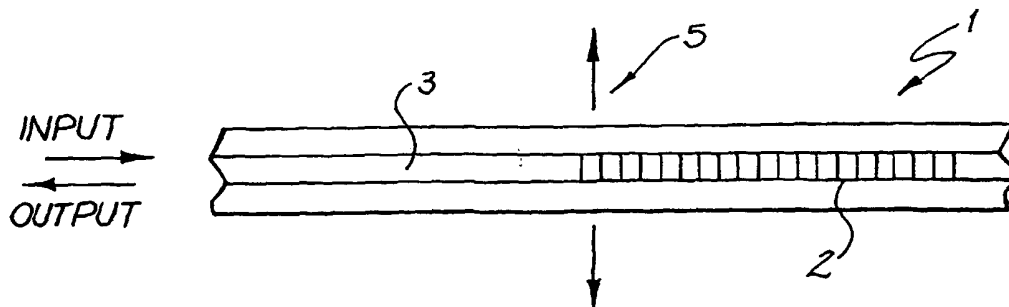
For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(71) Applicant (for all designated States except US): THE UNIVERSITY OF SYDNEY [AU/AU]; Parramatta Road, Sydney, NSW 2006 (AU).

(71) Applicant and

(72) Inventor: CANNING, John [AU/AU]; 10 Francis Street, Carlton, NSW 2218 (AU).

(54) Title: GRATING STRUCTURE AND OPTICAL DEVICES



(57) Abstract: An optical waveguide (1) has a grating structure (2) in which gratings of different orders are superimposed. When first and second order gratings are superimposed, input light is partially reflected by the first order component and partially coupled out of the waveguide by the second order component. The second order component can also be used to couple external light into the waveguide (1). The grating structure (2) has applications to free space couplers, optical sensors, and suppression of ripples in dispersion compensators.



WO 01/06279 A1